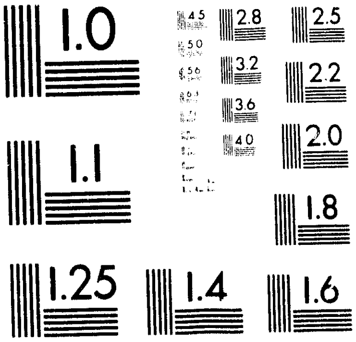
1.0
4.5
5.0
5.6
2.8
2.5
3.2
2.2
3.6
4.0
2.0
1.1
1.8
1.25
1.4
1.6

1 of 1

10/21-93 JS(2)

DOE/IG-0330

U.S. Department of Energy
Office of Inspector General

August 1993

Report on

Audit of Management and Operating Contractors' Subcontract Administration

IG IG IG IG IG IG IG
IG IG IG IG IG IG IG
IG IG IG IG IG IG IG
IG IG IG IG IG IG IG

This report can be obtained from the
U.S. Department of Energy
Office of Scientific and Technical Information
P.O. Box 62
Oak Ridge, Tennessee 37831

Printed with soy ink on recycled paper

(5-89)
EFG (07-90)

United States Government **Department of Energy**

memorandum

DATE: August 10, 1993

REPLY TO
ATTN OF: IG-1

SUBJECT: INFORMATION: Report on "Audit of Management and Operating Contractors' Subcontract Administration"

TO: The Secretary

BACKGROUND:

The Department of Energy Acquisition Regulation requires management and operating contractors to develop and maintain systems of management and control to ensure that subcontractors comply with contract terms and promote efficient and effective operations. Purchases must be made in the manner that is the most advantageous in meeting the Department's overall mission considering price, quality, timeliness, and efficient contract performance. Contractors are required to provide fair and effective competition when practicable, giving all potential offerors an opportunity to compete for subcontracts. The objective of the audit was to determine whether management and operating contractors awarded and administered subcontracts in accordance with Departmental acquisition regulations and contract terms.

DISCUSSION:

The four contractors that we reviewed had not established adequate systems to award and administer subcontracts. Their systems did not provide for fair and effective competition, reasonable costs and prices, and timely closure of completed subcontracts. These conditions existed because contractors did not ensure that employees adhered to contract terms and company policies, and because the Department did not adequately monitor contractors' purchasing systems. As a result, the Department paid excessive prices for goods and services and committed more funds than needed for subcontract costs.

The Associate Director, Office of Procurement, Assistance and Property concurred with the audit finding and recommendations, and agreed to implement the recommendations.

John C. Layton

John C. Layton
Inspector General

Attachment

cc: Director, Office of Procurement,
Assistance and Program Management

MASTER

U.S. DEPARTMENT OF ENERGY
OFFICE OF INSPECTOR GENERAL

REPORT ON AUDIT OF MANAGEMENT AND OPERATING CONTRACTORS' SUBCONTRACT ADMINISTRATION

Report No.: DOE/IG-0330
Date of Issue: August 10, 1993

Eastern Regional Audit Office
Oak Ridge, TN 37830

REPORT ON AUDIT OF MANAGEMENT AND OPERATING CONTRACTORS' SUBCONTRACT ADMINISTRATION

TABLE OF CONTENTS

U.S. DEPARTMENT OF ENERGY
OFFICE OF INSPECTOR GENERAL OFFICE OF AUDITS

REPORT ON AUDIT OF MANAGEMENT AND OPERATING CONTRACTORS' SUBCONTRACT ADMINISTRATION

Audit Report Number: DOE/IG-0330

SUMMARY

The U.S. Department of Energy uses contractors to manage and operate its research, production, and environmental restoration facilities. The Department's contractors, in turn, use the assistance of subcontractors to carry out their mission at these facilities. Departmental regulations and contract terms require that management and operating contractors develop and maintain management control systems to ensure that components, products, and services meet Departmental specifications and that its subcontracts promote efficient and effective operations. The objective of this audit was to determine whether management and operating contractors awarded and administered their subcontracts in accordance with Departmental regulations and contract terms.

The audited contractors had not established adequate systems to award and administer subcontracts. Their systems did not provide for fair and effective competition, reasonable costs and prices, and timely closure of completed subcontracts. These conditions existed because contractors did not ensure that employees adhered to contract terms and company policies, and because the Department did not adequately monitor contractors' purchasing systems. As a result, the Department paid excessive prices for goods and services and committed more funds than needed for subcontract costs.

Management generally concurred with the audit finding and recommendations.

Office of Inspector General

Office of Inspector General

PART I

APPROACH AND OVERVIEW

PURPOSE AND OBJECTIVE

The purpose of the audit was to evaluate management and operating contractors' administration of subcontracts. The objective of the audit was to determine whether the contractors awarded and administered subcontracts in accordance with Departmental acquisition regulations and contract terms.

SCOPE AND METHODOLOGY

The audit was performed from October 28, 1992, through April 5, 1993, at the following locations:

- Office of Procurement, Assistance and Program Management, Department of Energy Headquarters, Washington, D.C.;
- Westinghouse Environmental Management Company of Ohio, Fernald, Ohio;
- Argonne National Laboratory, Argonne, Illinois;
- Martin Marietta Energy Systems, Inc., Oak Ridge, Tennessee; and
- Westinghouse Savannah River Company, Aiken, South Carolina.

The audit was performed in accordance with generally accepted Government auditing standards for performance audits, except as noted below. It included tests of internal controls and compliance with laws and regulations necessary to satisfy the audit objective. Accordingly, we assessed significant internal controls over contractors' subcontract administration. The assessment included reviews of public laws and Federal and Departmental regulations for contractors' subcontract administration. Because our review was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed.

To achieve the objective for the audit, we relied extensively on computer-processed data at four contractor locations. We did not fully examine the reliability of the data due to the volume and complexity of data bases used. As a result, we were unable to make projections, conclusions, or recommendations based on the data. Otherwise, the audit was conducted in accordance with generally accepted Government auditing standards.

To answer the audit objective, we (1) reviewed Federal laws and regulations and Departmental orders and regulations for subcontract administration; (2) reviewed contractual requirements applicable to subcontract administration; (3) evaluated contractors' policies and procedures for administration of subcontracts; (4) examined buyers' files, invoices, documents used to support invoices, and approval documents for subcontracts reviewed; (5) reviewed contract audit reports issued by contractors' internal audit and Federal audit activities, and evaluated their use by subcontract administrators; and (6) interviewed Departmental, contractor, subcontractor, and Defense Contract Audit Agency personnel.

We evaluated the administration of 51 subcontracts that were open as of September 30, 1992, at 4 contractor locations. Background information on each of the four contractors is included in appendix 1 of this report. We judgmentally selected subcontracts valued at more than $100,000 to represent a cross section of the various types and dollar values of subcontracts administered at each contractor location. Of the 51 subcontracts we reviewed, 25 were cost-reimbursable and 26 were fixed-price. Selections included subcontracts for materials, equipment, construction, and architectural, engineering, professional, and technical services. Table 1 shows subcontract values for each contractor reviewed.

Table 1

Contractors and Evaluated Subcontract Values
(as of September 30, 1992)

Contractor	Number of Subcontracts	Subcontract Value (Millions)
Westinghouse Environmental Management Company of Ohio	12	$433.6
Argonne National Laboratory	15	81.9
Westinghouse Savannah River Company	12	57.9
Martin Marietta Energy Systems	12	116.3
Total	51	$689.7

We also evaluated closure actions taken by the 4 contractors for 27 subcontracts, with total obligations of $11 million, that were closed during Fiscal Year 1992. Table 2 shows subcontract values for each contractor we reviewed.

Table 2

Contractors and Evaluated Subcontract Values
(Subcontracts Closed in Fiscal Year 1992)

Contractor	Number of Subcontracts	Subcontract Value (Millions)
Westinghouse Environmental Management Company of Ohio	3	$ 2.6
Argonne National Laboratory	13	4.2
Westinghouse Savannah River Company	1	.8
Martin Marietta Energy Systems	10	3.4
Total	27	$11.0

An exit conference was waived by the Associate Director for Procurement, Assistance, and Property.

BACKGROUND

The Department uses contractors to manage and operate its research, production, and environmental restoration facilities. Its contractors, in turn, use subcontractors to assist them to carry out their responsibilities. In FY 1990, the Department obligated $13.8 billion to management and operating contractors, and more than $5 billion of these funds was spent on subcontracts.

Federal and Departmental acquisition regulations require that management and operating contractors develop and maintain systems of management and control to ensure that subcontractors comply with contract terms and conditions and promote efficient and effective operations. Contractors' systems must be documented, be consistently applied, and follow business practices appropriate for the requirement and dollar amount of the purchase involved. Purchases must be made in the manner that is the most advantageous in meeting the overall mission considering price, quality, and timely and efficient contract performance. Departmental regulations also require that allowability of costs for cost-reimbursable subcontracts be determined in accordance with the cost principles of Federal Acquisition Regulation Part 31, "Contract cost principles and procedures."

The Department monitors subcontracts awarded by contractors primarily through contractor purchasing system reviews and surveillance reviews. Purchasing system reviews are conducted at each contractor location by Department of Energy Headquarters and operations office personnel on a 3-year cycle. Surveillance reviews are performed by Headquarters and operations office personnel on an ongoing basis. The objectives of purchasing system reviews are to evaluate the effectiveness of contractors' procurement systems, and to provide contracting officers with the bases for approving or disapproving contractors' systems. If the system is approved, the contracting officer sets thresholds above which the contractor must obtain advance approval before subcontracts are awarded, and establishes the surveillance plan. If the contractor's system is disapproved, the contracting officer must establish corrective actions to be taken by the contractor and increase the level of surveillance over the contractor's purchasing system. Surveillance reviews are performed to determine whether the corrective actions are taken.

Several recent audits by the Department of Energy's Office of Inspector General and the General Accounting Office have disclosed significant deficiencies in contractors' administration of subcontracts and the Department's performance of purchasing system reviews. Examples include (1) subcontracts awarded on a sole-source basis without adequate justification; (2) make-versus-buy analyses not performed by contractors; (3) contract audits not performed, not timely, or not used in subcontract price negotiations; (4) subcontract modifications not justified and resulting in excessive costs; (5) subcontractors paid for invoices that overstated actual or allowable costs; (6) essential subcontract functions not performed; and (7) purchasing system reviews not performed properly by the Department.

Appendix 2 is a list of Office of Inspector General and General Accounting Office audit reports dealing with contractors' subcontract administration that were issued in calendar years 1990 through 1993.

OBSERVATIONS AND CONCLUSIONS

The Department of Energy and its contractors have improved subcontract administration policies, procedures, and practices in recent years. The Department reassigned responsibility for the performance of purchasing system reviews from its field offices to its Headquarters in 1991 to improve the effectiveness of the reviews. In response to a series of reports issued by the Office of Inspector General in 1990 and 1991, Westinghouse Savannah River Company established procedures to improve subcontract price negotiations, reduce usage of letter subcontracts, and more closely scrutinize subcontractors' invoices before payment. Also, the new contractor for the Fernald Environmental Management Project has terminated several subcontracts that were originally issued by the Department and transferred to the previous contractor for administration, and has hired the subcontractors' employees to work directly for the contractor at less overall costs to the Department.

In spite of these improvements, the audited contractors had not established adequate systems to manage and control subcontracts in accordance with Department regulations and contract terms. The contractors' systems did not provide for (1) fair and effective competition, (2) adequate cost and price analyses, (3) timely negotiations, (4) payments to subcontractors for only reasonable and allowable costs, and (5) timely closure of completed subcontracts. These conditions existed because contractors did not ensure that employees adhered to contract terms and company policies, and because the Department did not adequately monitor contractors' purchasing systems. As a result, the Department paid excessive prices for goods and services and committed more funds than needed for subcontract costs.

The findings contained in part II involve material internal control weaknesses that management should consider when preparing its yearend assurance memorandum on internal controls.

PART II

FINDING AND RECOMMENDATIONS

Management and Control of Subcontracts

FINDING

Departmental regulations require that management and operating contractors establish systems of management and control to ensure that subcontractors comply with contract terms and promote efficient and effective operations. The contractors that we audited did not have adequate systems to award and administer subcontracts, in that their systems did not adequately provide for fair and effective competition, reasonable costs and prices, and timely closure of completed subcontracts. These conditions existed because contractors did not ensure that employees adhered to contract terms and company policies, and because the Department did not adequately monitor contractors' purchasing systems. As a result, the Department paid excessive prices for goods and services and committed more funds than needed for subcontract costs.

RECOMMENDATIONS

We recommend that the Office of Procurement, Assistance and Program Management:

1. Require that contractor purchasing system reviews include steps designed to identify Department-directed procurements and coordinate corrective actions with responsible field office managers;

2. Require contractors to establish systems to track subcontract expiration dates and subcontract modifications, and use the systems to ensure adequate preprocurement planning and timely procurement actions, to include subcontract closure;

3. Develop a system to follow up on recommendations made in contractor purchasing system reviews to ensure that adequate corrective actions are taken by contractors timely; and

4. Establish deadlines for contractors to correct purchasing system deficiencies and require field office managers to disapprove contractors' systems, or take other appropriate actions, when significant corrections are not made according to established deadlines.

MANAGEMENT REACTION

Management generally concurred with the finding and recommendations and agreed to implement the recommendations.

DETAILS OF FINDING

SUBCONTRACT ADMINISTRATION REQUIREMENTS

The Department of Energy Acquisition Regulation (DEAR) requires management and operating contractors to develop and maintain systems of management and control to ensure that subcontractors comply with contract terms and promote efficient and effective operations. DEAR Part 970 requires that contractors' purchasing systems be documented, be consistently applied, and follow business practices appropriate for the requirement and dollar amount of the purchase involved. Purchases must be made in the manner that is the most advantageous in meeting the Department's overall mission considering price, quality, and timely and efficient contract performance. DEAR 970.7103 encourages contractors to use competition and discourages the use of sole-source subcontract awards. Sole-source acquisition means the awarding of a subcontract after soliciting and negotiating with only one source. DEAR 970.0901 requires contractors' systems to ensure that components, products, and services meet the Department's specifications; promote efficient and effective operations; and properly record, manage, and report all revenues, expenditures, transactions, and assets. DEAR 970.7103(c)(7) states that allowable costs for cost-reimbursable subcontracts will be determined in accordance with cost principles of Federal Acquisition Regulation Part 31, as supplemented by DEAR Part 931.

DEAR Part 970 also requires Department management to perform contractor purchasing system reviews and surveillance reviews to evaluate the effectiveness of contractors' purchasing systems, and to provide contracting officers with the bases for approving or disapproving contractors' purchasing systems.

Purchasing system reviews are to be performed on a 3-year cycle, and surveillance reviews are to be performed as needed. When contractors' purchasing systems are approved, contracting officers are required to set the thresholds above which the contractors must obtain the Department's approval before subcontracts are awarded, and to establish plans to monitor the contractors' purchasing systems. When contractors' systems are disapproved, contracting officers are required to establish corrective actions to be taken by the contractors, and increase the level of surveillance over the contractors' systems. Surveillance reviews are performed to determine whether corrective actions are taken and whether contractors' purchasing systems are effective. The DEAR does not establish specific criteria for approval or disapproval of contractors' purchasing systems.

CONTRACTORS' MANAGEMENT AND CONTROL SYSTEMS

Our limited evaluation of management and control systems at the four contractors disclosed that they generally had not administered subcontracts in accordance with Departmental regulations and contract terms.

The four contractors were Westinghouse Environmental Management Company of Ohio (Westinghouse of Ohio), Argonne National Laboratory (Argonne), Westinghouse Savannah River Company (Savannah River), and Martin Marietta Energy Systems (Energy Systems). The contractors' systems did not ensure that (1) competition was used when practicable, (2) price negotiations were based on adequate cost and price analyses, (3) price negotiations were completed before subcontracts were substantially completed, (4) payments to subcontractors were restricted to only reasonable and allowable costs, and (5) completed subcontracts were closed timely.

Use of Competition

DEAR 970.7103(c)(2) requires management and operating contractors to provide fair and effective competition when practicable. When competition is not practicable, buyers are required by the regulation to document justifications for sole-source awards. The Government's best interests are served by planning procurements in advance and giving all potential offerors an opportunity to compete for subcontracts.

Westinghouse of Ohio, Argonne, and Energy Systems sometimes awarded and extended sole-source subcontracts without adequate justification. Of the 39 subcontracts we reviewed at these locations, 19 were sole-source awards. Twelve of the 19 subcontracts awarded as sole-source were not supported with adequate justifications. The Government's best interests may not have been served in these procurements, because all potential bidders were not given an opportunity to compete. Other vendors may have been available to do a better job or do the same job at less cost than the successful bidder. The following are examples of inadequate sole-source justifications identified in our review.

1. Westinghouse of Ohio awarded a $2.3 million sole-source follow-on subcontract for environmental engineering services to the in-place subcontractor in August 1989, because ". . . bidding the subcontract would only serve to disrupt current project activities, generate additional costs . . . and place the burden of developing bids on other vendors which are not likely to be awarded the subcontract. . . ." The buyer awarded the subcontract to the in-place vendor without analyzing the market to identify other potential bidders who might have performed the work more efficiently or effectively. The follow-on subcontract was modified 23 times to extend the performance period through November 1992 and increase the price to $21.7 million.

2. Westinghouse of Ohio awarded a $4.4 million sole-source follow-on subcontract for technical services to the in-place subcontractor without written justification in January 1992. Contractor management stated that the Department requested the sole-source award in January 1992, because the Department expected the new environmental restoration management contractor to be in place by August 1992. The Department anticipated that the new contractor would take over the work performed by the

subcontractor. However, the new contractor did not take responsibility for Fernald until December 1992. The subcontract was eventually modified to extend the performance period through February 1993 and to increase the price to $12.1 million.

3. Argonne awarded a $1.8 million sole-source subcontract for support services in August 1992, because the Department directed that the services be provided to the Office of Waste Management in Washington, D.C. This action not only violated Departmental competition requirements, but also Department of Energy Order 4200.3D, which states that no Departmental element shall direct a management and operating contractor to provide support services directly to a Department element.

4. Argonne awarded a $3.6 million sole-source subcontract for support services in September 1992, because the Department requested that the services be provided directly to the Office of Nuclear Energy in Washington, D.C. The sole-source justification stated ". . . Competition is somewhat precluded only because of the intellectual background and contacts of people proposed for this work. . . ." The two principals proposed to do the work were former Department of Energy Deputy Assistant Secretaries.

5. Argonne awarded a $275,000 sole-source subcontract for support services in December 1991, because the Department of Energy's Deputy Assistant Secretary for Export Assistance directed it. No other justification was provided for the sole-source award.

6. Energy Systems awarded a $913,444 sole-source subcontract to lease copier equipment in February 1990, because the user requested the copier by name and model number. Although the Federal Supply Schedule listed a similar copier that would have satisfied the user's needs at less cost, the buyer awarded the sole-source subcontract without evaluating alternative sources. The Department could have saved $218,300 if Energy Systems had awarded the subcontract to the less expensive supplier.

Cost and Price Analyses

DEAR 970 and 915 require that management and operating contractors perform cost and price analyses before negotiating subcontract prices with vendors. For high-value negotiated procurements, buyers are required to obtain certified cost and pricing data from vendors, obtain advisory audits and technical reviews from Government or internal sources, and use the results of advisory audits and technical reviews to develop and document price negotiation objectives. The purpose of cost and price analyses is to provide for the development of fair and reasonable subcontract prices. If buyers do not have access to assist audits or technical reviews in negotiating subcontract prices, the buyers are placed at a disadvantage because vendors' negotiators normally have access to accurate, complete, and current cost and pricing data during price negotiations.

Westinghouse of Ohio, Argonne, and Energy Systems did not perform adequate cost or price analyses in negotiating subcontract prices for 9 of the 39 subcontracts reviewed. We identified instances in three subcontracts in which assist audits or technical reviews were not obtained for price negotiations. We also identified instances in three subcontracts in which assist audits were obtained but differences of opinions between vendors and contract auditors were not adequately resolved before prices were negotiated. We identified three additional subcontracts for which buyers did not perform accurate or complete cost and price analyses. The following are examples of inadequate cost or price analyses identified during the audit.

1. Westinghouse of Ohio did not verify fixed unit prices paid for laboratory tests that were proposed to be based on the vendor's commercial catalog prices. If the buyer had requested an assist audit or compared proposed prices to the vendor's catalog prices, she could have determined that the proposed prices were up to 260-percent higher than the vendor's commercial catalog prices. The subcontract was awarded in November 1990 for an estimated value of $480,000 and was extended through January 1993 at a total cost of $1,705,000. The Department could have avoided laboratory costs of $765,897 between November 1990 and January 1993 if the contractor had paid actual catalog prices for the laboratory tests.

2. Westinghouse of Ohio did not properly resolve issues raised by Government contract auditors in negotiating prices for cost-reimbursable modifications to an

architectural and engineering services subcontract between January 1990 and February 1993. Government auditors questioned portions of the vendor's proposed indirect cost rates and computer services rates, because the proposed rates were based on old data. The vendor disagreed with the auditors' recommended rates. The buyer stated that he did not attempt to resolve differences between the Government auditors and the vendor because he believed that the differences would be resolved in the final cost audit after the contract was completed. The subcontract was awarded in March 1986 and extended through September 1995 for a total price of $21.8 million. If the buyer had used the audited rates to negotiate contract prices instead of the vendor's proposed rates for 11 modifications negotiated after January 1990, negotiated fees would have been reduced by $53,913.

3. Westinghouse of Ohio did not resolve a disagreement with an architectural and engineering subcontractor regarding the payment of assignment incentives to employees transferred to Fernald. The subcontractor proposed that employees transferred to Fernald receive incentive payments of 10 percent of their salaries for 3 years. The subcontractor proposed that the incentive payments would be reduced by one-half the amount of any merit or promotional increases after 3 years. Westinghouse of Ohio stated in the record of subcontract price negotiations that the incentive payment issue would be resolved at a later date; however, the issue was not resolved at the time of our audit. The Oak Ridge Field Office evaluated the subcontractor's proposal for incentive payments and advised Westinghouse of Ohio in November 1991 that the subcontractor had not justified the payments. Nevertheless, the subcontractor has included employee incentive payments of $788,908 in its billings to Westinghouse of Ohio since the inception of the subcontract. (The amount of the billings were reported to us by the subcontractor and have not been audited.)

4. Argonne did not obtain an assist audit for the award of a $3.6 million, sole-source, cost-reimbursable subcontract for support services, even though the subcontractor had been in business for less than 6 months before the award. The subcontract was a Department-directed procurement.

5. An Argonne buyer awarded a cost-reimbursable subcontract for $275,000 for professional services without following the advice of the cost analyst regarding limits on allowable fee. The cost analyst questioned the proposed 15-percent fee for the award, because Federal and Departmental acquisition regulations and Argonne Procedure No. 14 limit allowable fees on cost-reimbursable subcontracts to 10 percent of estimated costs. The Department could have avoided $11,900 in fees on the subcontract, if the buyer had complied with the 10-percent limit.

6. Energy Systems entered into a 5-year lease-to-own arrangement to obtain three high-speed office copiers, when the lease-versus-purchase analysis showed that purchasing would be more cost effective than leasing the equipment. The Department could have avoided $88,000 over 5 years if Energy Systems had purchased the equipment instead of entering into a 5-year lease.

Timely Price Negotiations

The DEAR encourages contractors to negotiate subcontract prices before authorizing subcontract work to begin. DEAR Part 931 states that costs are generally not allowable on contracts or subcontracts if the costs are incurred before the work is authorized by appropriate procurement officials. Subcontract work and associated costs should not be retroactively authorized by means such as predating contractual agreements.

DEAR Part 916 permits contractors to use letter subcontracts in those rare instances when work must begin immediately and cannot be delayed until subcontract prices are properly negotiated. Letter subcontracts may be used by buyers to authorize the start of subcontracted services in advance of price negotiations. Letter subcontracts are required to establish schedules to show when prices will be negotiated or definitized. DEAR Part 916 requires that letter subcontracts and letter subcontract modifications be definitized within 180 days after award or before 40 percent of the work is completed. This requirement is intended to preclude violations of the Federal law prohibiting cost-plus-a-percentage-of-cost type contracts and subcontracts. The U.S. Comptroller General has held that the conversion of a letter contract to a definitive contract after the work was "substantially completed" violated the Federal statute [35 Comp. Gen. 291. (1954)].

Westinghouse of Ohio, Argonne, and Energy Systems did not always negotiate subcontract prices timely. Of the 39 subcontracts we reviewed at the these contractor locations, we identified 13 subcontracts for which work began before it was properly authorized by procurement officials, and 7 subcontracts for which prices were not negotiated before the authorized work was substantially completed.

Westinghouse of Ohio appeared to have the most problems in this area. Westinghouse of Ohio issued 114 letter awards for subcontracts and subcontract modifications, with a total value of $31.8 million, for 5 of the 6 cost-reimbursable subcontracts we reviewed. We were unable to determine the percentage of completion at the time of definitization for 86 of the 114 awards, because authorizations to begin work did not specify the anticipated period of performance. The remaining 28 awards, valued at $25.5 million, were not definitized before completion. Of the 114 awards evaluated, we determined that 69 were not definitized within 180 days. In fact, the contractor took an average of 472 days to definitize the 69 awards. Although we were unable to determine the percentage of completion for letter awards to one subcontractor, we were able to determine that work negotiated at a cost and fee of $995,140 for 11 subprojects was definitized after the work was completed.

The following are specific examples of contractor awards wherein subcontract prices were not negotiated timely and in compliance with Departmental requirements.

1. Westinghouse of Ohio awarded a sole-source letter subcontract for 3.5 months of temporary technical services in January 1992. The original award was estimated to cost $4.4 million. The subcontract was modified three times to extend the period of performance through February 1993 and increase total funding to $12.1 million. As of March 17, 1993, the subcontractor continued to work under the expired subcontract, and the contractor still had not definitized the basic subcontract or any modifications.

2. Westinghouse of Ohio authorized engineering services to be performed under modifications to a cost-reimbursable subcontract between January 1989 and April 1992. All work was completed as of April 4, 1992. The employee who requisitioned the services estimated the cost of the completed work to be $2 million. As of March 17, 1993, the subcontract modification was still not definitized.

3. An Argonne subcontractor submitted a claim for $60,000 in December 1991 for work that it was directed to perform by an Argonne employee outside of procurement. The employee directed the company to order materials and supplies and construct trailers in anticipation of a subcontract. The subcontract was eventually awarded on a sole-source basis to the company that submitted the claim, because Argonne management believed the company had a strong case for its claim. As of March 17, 1993, the total value of the subcontract was $154,814.

4. Energy Systems permitted a subcontractor to supply prescription safety glasses to the Oak Ridge Y-12 Plant for over 4 months without a subcontract. The existing fixed-price subcontract was allowed to expire because funding was not available to cover costs until more than 4 months into the new fiscal year. During the 4 months, the subcontractor invoiced costs of $172,500.

5. Energy Systems permitted a subcontractor to provide environmental restoration support for 8 months, at a cost of $105,800, without issuing a task order under the existing subcontract. Although the work was performed from June 1991 through December 1992, the task order was not issued until February 1992.

Payments Limited to Reasonable and Allowable Costs

DEAR 970 requires that contractors establish management and control systems to ensure that purchased components, products, and services meet Department specifications, and that subcontractors comply with subcontract terms and promote efficient and effective operations. Further, DEAR 970.7103(c)(7) requires that contractors determine allowability of costs for cost-reimbursable subcontracts in accordance with the cost principles of Federal Acquisition Regulation Part 31, as supplemented by DEAR Part 931. In order to comply with the DEAR requirements and avoid inappropriate payments to subcontractors, contractors must develop quality control systems to monitor work performed by subcontractors and review the accuracy of subcontractors' invoices prior to payment.

Westinghouse of Ohio and Energy Systems did not conduct adequate reviews of vendor invoices prior to payment. The contractors reimbursed subcontractors for overstated or unallowable costs on 4 of the 24 subcontracts evaluated. The following are examples of overstated or unallowable costs paid to subcontractors by Westinghouse of Ohio and Energy Systems.

1. Westinghouse of Ohio reimbursed an architectural and engineering firm using outdated rates for indirect costs and computer services, even though Government auditors advised the buyer that the rates were outdated and excessive. The subcontractor disagreed with the auditors' recommended rates. The buyer stated that he did not attempt to resolve differences between Government auditors and the subcontractor, because he believed that the differences would be resolved in the final cost audit after the subcontract would be completed (September 1995). If the buyer had limited reimbursements using the rates recommended by Government auditors, the Department could have avoided subcontract costs of $1.1 million from January 1990 through September 1992.

2. Westinghouse of Ohio's successor contractor, Fernald Environmental Restoration Management Corporation, reimbursed a technical services subcontractor in January 1993 for costs that were not included in the subcontract payment schedule. The subcontract was competitively awarded in June 1992 by Westinghouse of Ohio to an affiliated corporation in Oak Ridge, Tennessee. The subcontract stated that payments would be made to the subcontractor for disposal of scrap metal at a fixed-price for each ton of scrap metal removed. However, the subcontractor was reimbursed $475,606 for development of the workplan and acquisition of equipment, without processing any scrap metal.

3. Westinghouse of Ohio paid an engineering services subcontractor a fee that exceeded subcontract fee provisions. The subcontract stated that the fixed fee payable to the subcontractor would not exceed the amount listed for each subproject in article VI, "Fixed Fee," of the subcontract. Despite the contract terms, Westinghouse of Ohio paid the subcontractor a fee that was neither negotiated nor listed in article VI. According to a January 1993 "Cost/Fee Report" from the subcontractor, Westinghouse of Ohio paid approximately $143,000 of fee in excess of the contractual amounts.

4. Energy Systems paid a subcontractor for safety glasses that were not provided in accordance with the terms of the subcontract. The subcontract provided for specific types of safety glasses to be provided to Energy Systems employees when the employees provided evidence of supervisory approval. The safety glasses that were approved by Energy Systems for sale under the terms of the subcontract were limited to basic or "no-frills" frames and lenses. Nevertheless, the subcontractor provided many employees safety glasses with special features, such as scratch-resistant, polished, or beveled lenses. Based on a random sample of 12 invoices over the life of the subcontract (May 1990 through December 1992), we estimate that $352,000 of the $1,167,000 paid to the subcontractor was for glasses that were not authorized under the terms of the subcontract.

Timely Closure of Completed Subcontractors

DEAR 904.804-1 requires that contractors comply with the closure provisions of Federal Acquisition Regulation 4.804-1. The regulation states that subcontracts requiring settlement of indirect cost rates must be closed within 36 months after the contractor receives evidence of physical completion. All other types of subcontracts are required to be closed within 20 months of physical completion. The 36-month and 20-month timeframes were determined to be sufficient for subcontractors to submit their final cost vouchers, and for buyers to obtain and evaluate final cost audits from Government or internal auditors for cost-reimbursable subcontracts.

None of the four audited contractors consistently closed subcontracts within the required timeframes. Table 3 is a summary of cost-reimbursable subcontracts that were physically completed for more than 36 months as of September 30, 1992, for the contractors reviewed. The table shows that a total of 467 subcontracts, with commitments of more than $665 million, were still open at least 36 months after completion at Westinghouse of Ohio, Westinghouse Savannah River Company, and Energy Systems. We could not determine Argonne's inventory of subcontracts physically completed for more than 36 months without examining 177 individual subcontract files.

Table 3

Inventory of Subcontracts That Were Physically Completed for More Than 36 Months as of September 30, 1992

Contractor	Quantity	Committed Amount (Millions)
Westinghouse Environmental Management Company of Ohio	1	$ 1.1
Westinghouse Savannah River Company	18	262.7
Martin Marietta Energy Systems	448	401.3
Total	467	$665.1

Delays in closing physically completed subcontracts occurred at almost every phase of the closure process. Energy Systems, for example, averaged 16 months between the date the subcontract was physically completed and the date of the request for the final cost audit, 22 months between the date of the audit request and the date of its receipt, and another 14 months to actually close the subcontract after receipt of the audit report.

Contractor management stated that subcontract closure was the lowest priority for procurement personnel. Contractors made the awarding of new subcontracts their highest priority and made modifications to existing subcontracts their next priority, because these activities provided the materials and services needed for mission accomplishment. Consequently, subcontract closure was the lowest priority.

CAUSES OF DEFICIENCIES IN MANAGEMENT AND CONTROL SYSTEMS

The conditions described above occurred because the contractors did not ensure that their employees adhered to contract terms and company policies, and because the Department did not perform adequate surveillance on the contractors' purchasing systems.

Employee Adherence to Contract Terms and Company Policies

Each of the contractors we reviewed had developed written policies and procedures that, if followed, would have resulted in compliance with Departmental requirements and would have precluded the conditions discussed above. In fact, several of their internal procedures were more stringent than Departmental regulations. However, contractors did not require their employees to adhere to Departmental and company policies. Contractors did not adequately supervise employees and did not establish tracking systems to ensure adequate preprocurement planning and timely pricing and subcontract closure.

Westinghouse of Ohio, for example, established Procedure Number 301.04 in September 1991, stating that letter subcontracts and subcontract modifications should be definitized within 30 days or before 80 percent of the work is completed. For the subcontracts that we reviewed, this procedure is more restrictive than the Departmental requirement of 180 days or before 40 percent of the work is completed, because the subcontracts were rarely 40 percent complete within 30 days. Nevertheless, Westinghouse of Ohio's employees took an average of 472 days to definitize letter subcontract awards, and many awards were 100-percent complete before definitization. The contractor did not develop a tracking system to monitor the quantity and age of letter subcontract awards or buyers' performance to the 30-day guidelines.

As another example, Energy Systems Procurement Manual Chapter 20.7G requires that subcontracts for which indirect cost rates were established should be closed within 20 months of physical completion. This requirement is more stringent than the Department's requirement of 36 months. Nevertheless, Energy Systems' employees took an average of 52 months to complete the 10 subcontracts that we reviewed in this audit. The contractor did not develop a tracking system to monitor employees' performance to the 20-month guideline.

Departmental Administration of Contractors' Purchasing Systems

Improvements are needed in the Department's administration of contractors' purchasing systems. Purchasing system reviews performed by the Department have identified system deficiencies, but they have not resulted in effective corrective actions. For example, the 1990 purchasing system review performed at Westinghouse of Ohio identified 37 deficiencies, including 4 of the types identified in this audit. The 1992 review at Argonne identified 11 deficiencies, and the 1991 review at Energy Systems identified 54 deficiencies, some of which still existed during our audit.

Most of the recommendations resulting from the Department's purchasing system reviews involve the development of written procedures and employee training. Consequently, contractors generally satisfy Departmental reviewers by developing new or revised procedures or by conducting procurement training for employees. While written procedures and training are important, they must be enforced by management and supervision in order to improve employee performance.

The Department could improve the purchasing system review process by developing specific recommendations for improvement and following up with contractors to ensure that the recommendations are effectively implemented. When contractors do not definitize letter subcontracts within DEAR specified timeframes, for example, the Department could establish specific reduction goals to be met by the contractor, require monthly reports on the contractor's progress in reducing the number of undefinitized letter awards, and disapprove the purchasing system if corrective actions are not taken in a reasonable timeframe. The reduction goal could also be included as a factor in the contractor's award fee determination to provide the contractor with additional incentives.

IMPACT OF PURCHASING SYSTEM DEFICIENCIES

As a result of these conditions, the Department's contractors (1) did not receive financial benefits available from competition, (2) paid excessive prices for subcontractors' goods and services, (3) reimbursed subcontractors for questionable costs, and (4) committed more funds than necessary for subcontracts.

Benefits Available From Competition

The Department did not receive the benefits available from competition when contractors awarded sole-source subcontracts without giving all potential bidders an opportunity to compete. Other vendors may have been available to perform the required tasks more efficiently or effectively than the vendors selected. We were unable to determine the potential savings available from competition in the cases cited in this report, because contractors did not perform market analyses at the time of subcontract award to identify potential vendors and their bid prices.

Excessive Subcontract Prices

The Department paid excessive prices for at least 7 of the 51 subcontracts we reviewed, because price negotiations were not always based on adequate cost and price analyses, and because price negotiations were sometimes not completed before the contracts were substantially completed. We identified $2.2 million in excessive prices paid for 7 subcontracts reviewed.

Reimbursements for Questionable Costs

The Department reimbursed subcontractors for questionable costs of $2.1 million on 4 of the 51 subcontracts reviewed, because contractors did not adequately scrutinize invoices to detect questionable costs. We did not attempt to perform a comprehensive audit of all invoices for the subcontracts reviewed or of all elements of costs billed; therefore, the amount identified in this report may not represent the total questionable costs reimbursed to the 51 subcontracts involved.

Unnecessary Commitments

The untimely closure of physically completed subcontracts has resulted in unnecessary commitments of the Department's funds. Uncosted commitments (the difference between committed funds and actual costs incurred) for physically completed subcontracts are funds that could be made available for use on other projects or programs, if the completed subcontracts were closed.

We estimate that the uncosted commitments for physically completed subcontracts at Westinghouse of Ohio, Argonne, and Energy Systems totaled $20.7 million as of September 30, 1992.

The estimate is based on actual uncosted commitments of $3.8 million for Westinghouse of Ohio's 5 physically completed subcontracts, on estimates of $1.3 million for Argonne's 177 physically completed subcontracts, and on estimates of $15.6 million for Energy Systems' 852 physically completed subcontracts. The estimate for Argonne is based on an application of the percentage of uncosted commitments for subcontracts that were closed in FY 1992 (1.5 percent) to open commitments for physically completed subcontracts as of September 30, 1992 ($89 million). The estimate for Energy Systems is based on a projection of uncosted commitments for a random sample of 43 subcontracts that were closed by Energy Systems in FY 1992 to total open commitments of $814.2 million as of September 30, 1992. Westinghouse Savannah River Company had no uncosted commitments, because the contractor's accounting practice in FY 1992 was to commit funds as it incurred subcontract costs.

A portion of the contractors' uncosted commitments may be needed to satisfy withholdings from subcontractors' fees in the final subcontract payment; however, the amount withheld from subcontractors' fees have historically been more than offset by incurred costs questioned in audits of subcontractors' final cost vouchers.

PART III

MANAGEMENT AND AUDITOR COMMENTS

In responding to the tentative finding and recommendations, the Office of Procurement, Assistance and Program Management concurred with the finding and recommendations. Management's comments and our reply follows.

Management Comments. Management stated that the relatively small sample size of 51 subcontracts from 4 contractors may not allow broad statements to be made regarding overall performance of management and operating contractors. Nevertheless, management took no exception to the finding and shared the auditors' concerns regarding contractors' purchasing systems.

In response to a previous version of this draft report, management agreed with the recommendations, except for recommendation 4. Management believed that recommendation 4 did not provide sufficient latitude as to what action might be taken when a contractor does not meet established deadlines for corrective action.

Auditor Comments. We revised recommendation 4 to provide more latitude as to actions to be taken when contractors do not meet established deadlines for corrective action.

Management's comments are responsive to the recommendations in this report.

BACKGROUND ON THE FOUR AUDITED CONTRACTORS

Argonne National Laboratory

Argonne National Laboratory (Argonne) is a multidiscipline research facility established by the Atomic Energy Act of 1946. Argonne's primary focus is on nuclear energy engineering research, basic sciences, and biomedical and environmental sciences and technology. Its role is to develop and operate research facilities for members of the scientific community, maintain close interaction with personnel in universities and industry, and aid in the education of scientists and engineers.

The laboratory's primary location is at Argonne, Illinois, about 25 miles southwest of Chicago, and it employs approximately 2,900 people. The Argonne-west site is in Idaho Falls, Idaho, and it employs approximately 1,000 people.

The University of Chicago operates this Government-owned, contractor-operated facility under a cost-reimbursable contract administered by the Chicago Operations Office.

Argonne spent 42 percent of its operating budget for subcontracts during FY 1992. The operating budget was $505 million, and subcontract costs totaled $215 million. Subcontracts were administered through a purchasing system that was established by Argonne and approved by the Chicago Operations Office.

Martin Marietta Energy Systems

Martin Marietta Energy Systems operates three facilities for the Department in Oak Ridge, Tennessee: The Oak Ridge National Laboratory, the Y-12 Plant, and the K-25 Site. The contract is a cost-plus-award-fee agreement and is administered by the Oak Ridge Operations Office. The FY 1992 combined capital and operating budget for the three facilities was approximately $1.6 billion.

The mission of these facilities is diversified and includes a variety of activities. These include (1) producing and distributing radioisotopes, stable isotopes, special nuclear and source materials, irradiation services, and other materials and products; (2) performing research and development activities in the weapons program, physical and life sciences, and energy-related socioeconomics; and (3) conducting waste management and environmental restoration activities.

Martin Marietta Energy Systems' Procurement Division serves the procurement needs of the three Oak Ridge facilities and provides some assistance to both the Paducah, Kentucky, and Portsmouth, Ohio, uranium enrichment facilities, also operated by Energy Systems. It employs approximately 220 personnel, of which about 95 are buyers. In addition, each of the three facilities has a small materials control staff that screens procurements for propriety. During FY 1992, the Procurement Division processed approximately 280,000 transactions valued at about $600 million.

Westinghouse Environmental Management Company of Ohio

Westinghouse Environmental Management Company of Ohio (Westinghouse of Ohio) managed, operated, and maintained the Fernald Environmental Management Project, Fernald, Ohio, for the Department of Energy under a cost-plus-award-fee contract, awarded by the Oak Ridge Operations Office. Westinghouse of Ohio managed and operated the facility from January 1, 1986, through November 30, 1992. Westinghouse of Ohio employed 1,470 people, and its FY 1992 operating costs were $249 million.

On August 18, 1992, Fluor Daniel Environmental Restoration Management Corporation (Fernald Corporation) was selected as the environmental restoration management contractor for Fernald under a cost-plus-award-fee contract. Fernald Corporation assumed full responsibility for the operation of the Fernald facility on December 1, 1992. The contract was awarded by the Oak Ridge Operations Office and is administered by the Fernald Field Office.

Westinghouse of Ohio's Acquisition Department was located in Fairfield, Ohio, and it employed 30 people as of September 30, 1992. The Acquisition Department administered 1,863 subcontracts valued at $535 million as of September 30, 1992. It had an operating budget of $1.8 million.

Westinghouse Savannah River Company

Westinghouse Savannah River Company operates the Savannah River Site, in Aiken, South Carolina, for the Department of Energy under a cost-plus-award-fee contract administered by the Savannah River Operations Office. The Savannah River Site produced plutonium and tritium primarily, for the Department of Defense nuclear weapons program. It had three nuclear reactors for the fulfillment of this primary mission. However, all three reactors are shutdown for safety concerns. One reactor has been placed in cold standby, and the other two reactors will not be restarted. About 24,000 people are employed at the site, including subcontractor employees. Westinghouse Savannah River Company's operating expenditures for FY 1992 were $1.7 billion.

REPORTS ISSUED BY THE DEPARTMENT OF ENERGY'S OFFICE OF INSPECTOR GENERAL AND THE U.S. GENERAL ACCOUNTING OFFICE

Office of Inspector General

Report Number	Report Title
ER-LC-90-05	Administration of Professional Support Services Subcontracts at Martin Marietta Energy Systems
ER-CC-91-06	Report on the Independent Audit of Travel and Temporary Living Allowance Costs Claimed Under Contract No. DE-AC09-88SR18035, October 1, 1987, to September 30, 1989, Ebasco Services Incorporated
ER-B-91-07	Martin Marietta Energy Systems, Inc., Subcontracting in the Work-For-Others Program for Data Systems Research and Development Programs
ER-BC-91-03	Fabrication Department at Oak Ridge National Laboratory, Martin Marietta Energy Systems
ER-B-92-03	Central Shops Fabrication at Savannah River Site
ER-BC-92-03	Procurement Activities at the Strategic Petroleum Reserve
ER-CC-91-02	Report on the Independent Audit of Direct Subcontract Costs Claimed Under Contract No. DE-AC09-88SR18035, October 1, 1987 to September 30, 1989, ABB Impell Corporation
ER-OC-90-11	Blanket Purchase Orders and Time and Material Subcontracts at Brookhaven National Laboratory
ER-L-91-08	Selected Aspects of EG&G Mound Plant Protective Force Staff Management
DOE/IG-0301	Accounting for Refunds Received from Westinghouse Savannah River Company Subcontractors at the Savannah River Site

Report Number	Report Title
ER-CC-91-05	Report on the Independent Audit of Direct Subcontract Costs Claimed Under Contract No. DE-AC09-88SR18035, October 1, 1987, to September 30, 1989, ABB Combustion Engineering Nuclear Power, Windsor, Connecticut
ER-CC-91-08	Report on the Independent Audit of Travel and Temporary Living Allowance Costs Claimed Under Contract No. DE-AC09-88SR18035, October 1, 1987, to September 30, 1989, United Engineers and Constructors, Inc., Philadelphia, Pennsylvania
ER-B-91-12	Travel and Per Diem Reimbursement on the Price Waterhouse Subcontract at the Savannah River Site
	U.S. General Accounting Office
GAO/T-RCED-91-79	Department of Energy Needs to Improve Oversight of Subcontracting Practices of Management and Operating Contractors
GAO/RCED-91-186	Using Department of Energy Employees Can Reduce Costs for Some Support Services
GAO/RCED-92-41	Contract Audit Problems Create the Potential for Fraud, Waste, and Abuse
GAO/RCED-92-28	Department of Energy Actions to Improve Oversight of Contractors' Subcontracting Practices
GAO/RCED-92-26	Weak Department of Energy Contract Management Invited TRUPACT-II Setbacks
GAO/T-RCED-92-41	Systematic Analysis of Department of Energy's Uncosted Obligations Is Needed
GAO/RCED-92-101	Vulnerability of Department of Energy's Contracting to Waste, Fraud, Abuse, and mismanagement

DATE
FILMED
11 / 5 / 93

END